

A method and data processing system assesses the security vulnerability of a network. A system object model database is created and supports the information data requirements of disparate network vulnerability analysis programs. Only the required data from the system object model database representing the network is imported to the programs, which then analyze the network to produce data results from each program. These data results are stored in a common system model database and within the data fact base. Goal oriented fuzzy logic decision rules are applied to determine the vulnerability posture of the network.